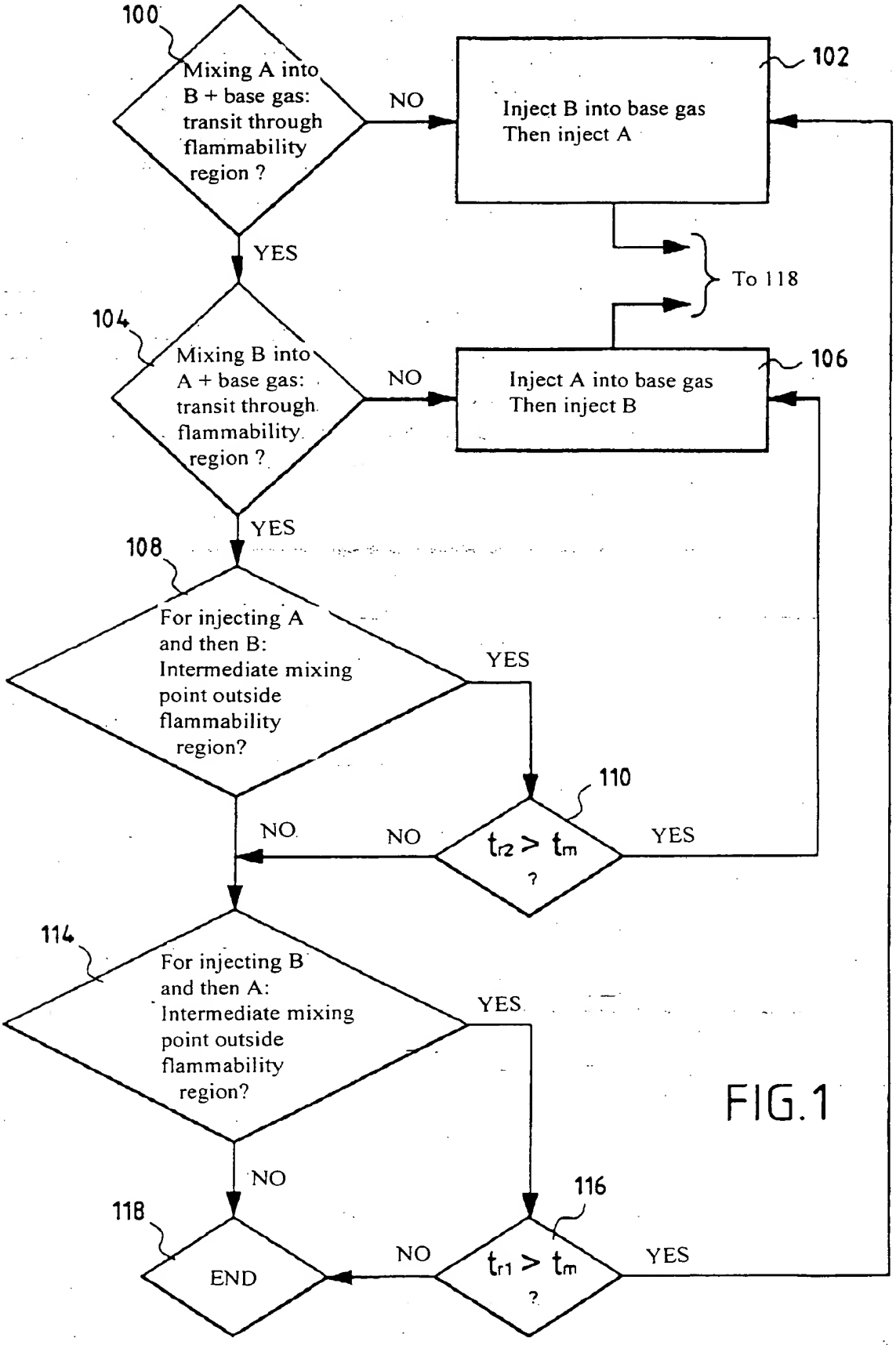

100
Mixing A into B + base gas: transit through flammability region ?
NO
102
Inject B into base gas Then inject A
YES
To 118
104
Mixing B into A + base gas: transit through flammability region ?
NO
106
Inject A into base gas Then inject B
YES
108
For injecting A and then B: Intermediate mixing point outside flammability region?
YES
110
NO
NO
$t_{r2} > t_m$?
YES
114
For injecting B and then A: Intermediate mixing point outside flammability region?
YES
NO
116
118
END
NO
$t_{r1} > t_m$?
YES

FIG.1

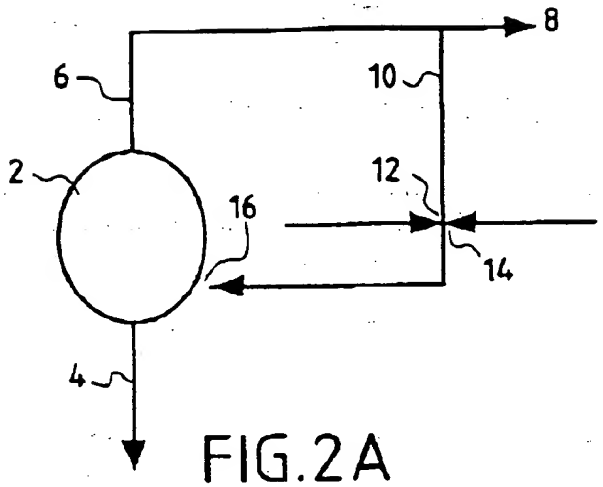

8
6
10
2
12
16
14
4

FIG.2A

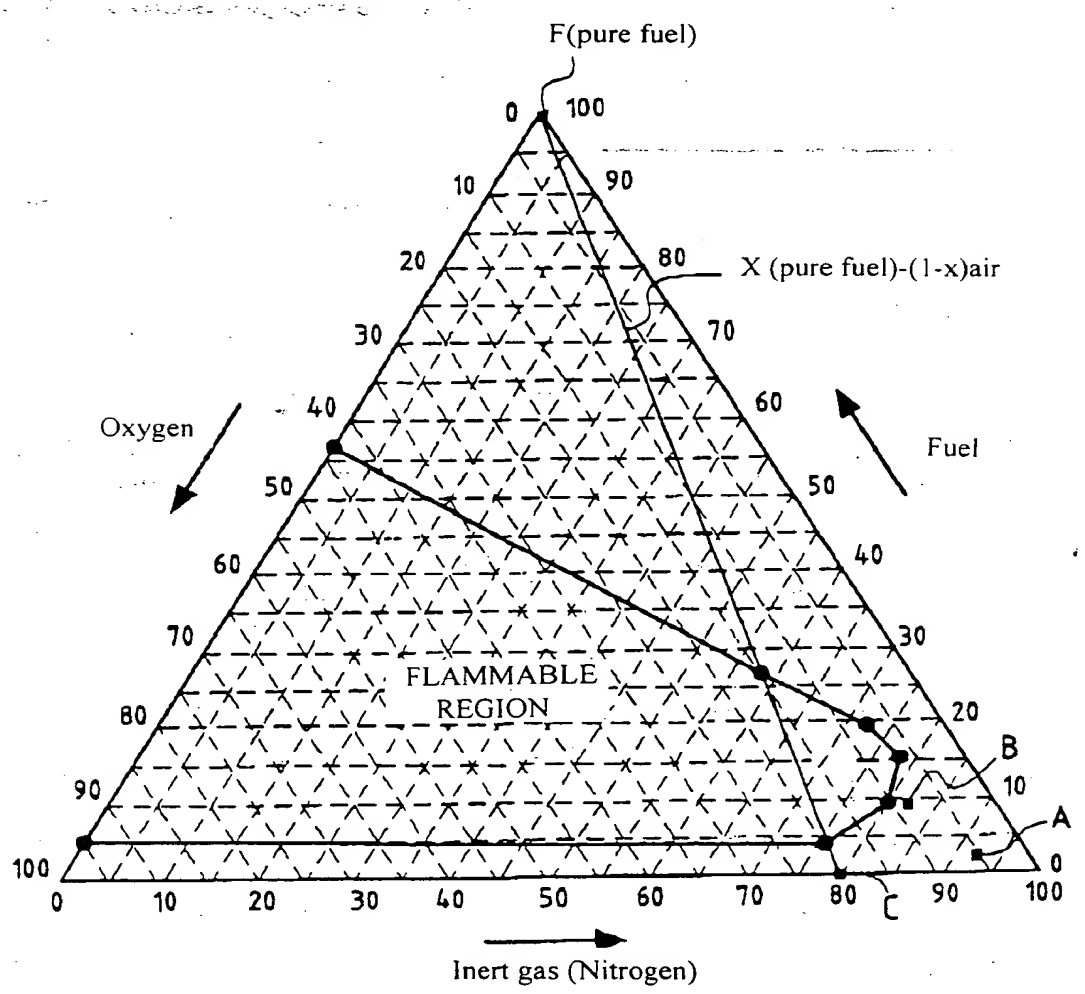

F(pure fuel)
X (pure fuel)-(1-x)air
Oxygen
Fuel
FLAMMABLE
REGION
A
B
C
Inert gas (Nitrogen)

FIG.2B

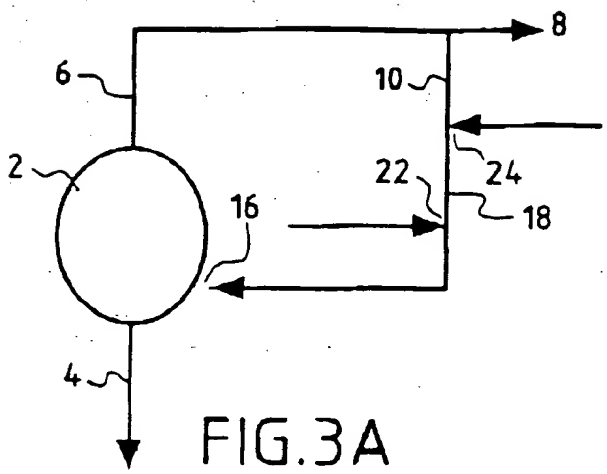

8
6
10
2
22
24
16
18
4

FIG.3A

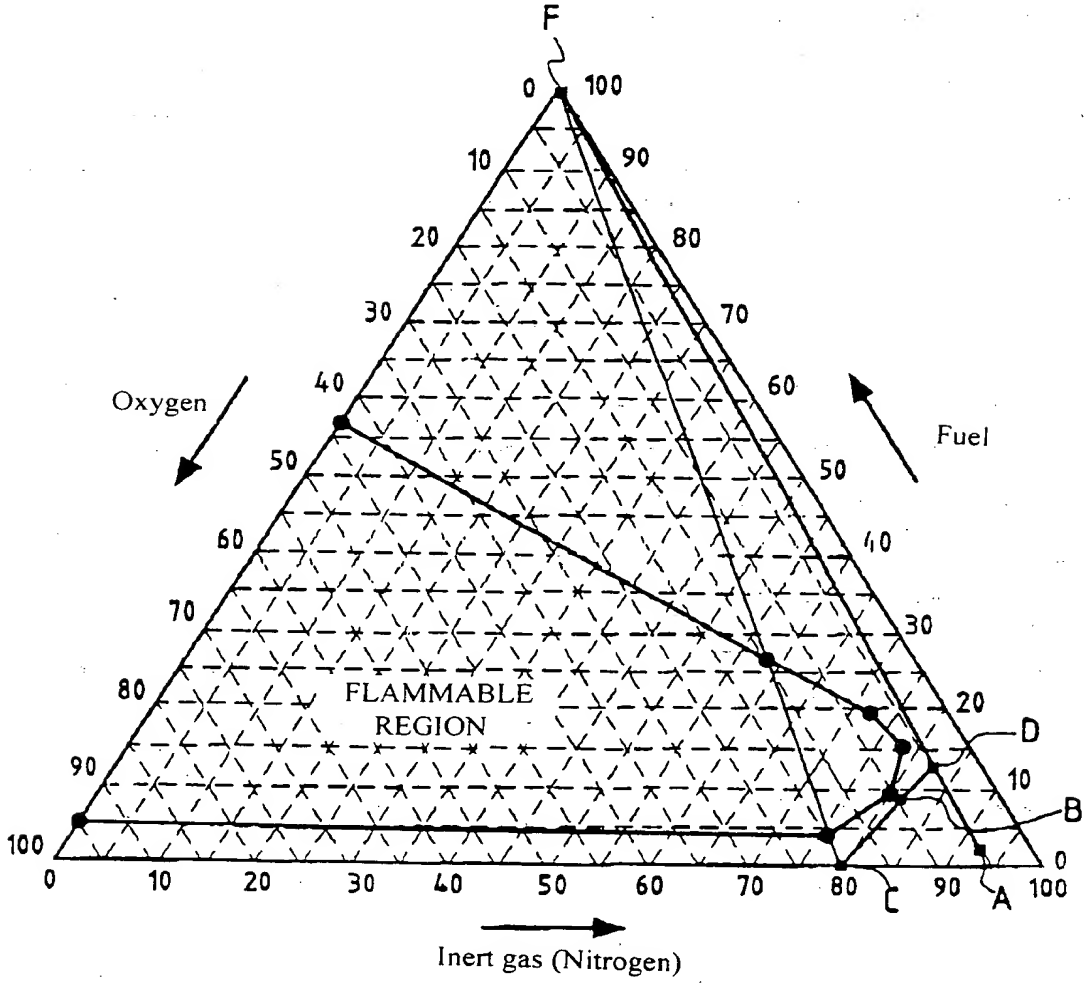

F
Oxygen
Fuel
FLAMMABLE
REGION
D
B
A
C
Inert gas (Nitrogen)

FIG.3B

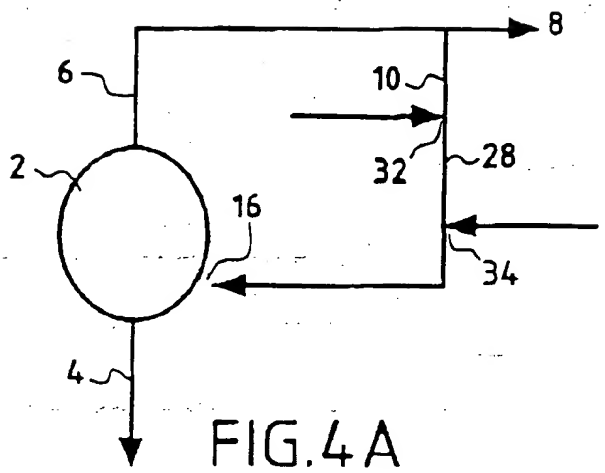

8
6
10
32
28
2
16
34
4

FIG.4A

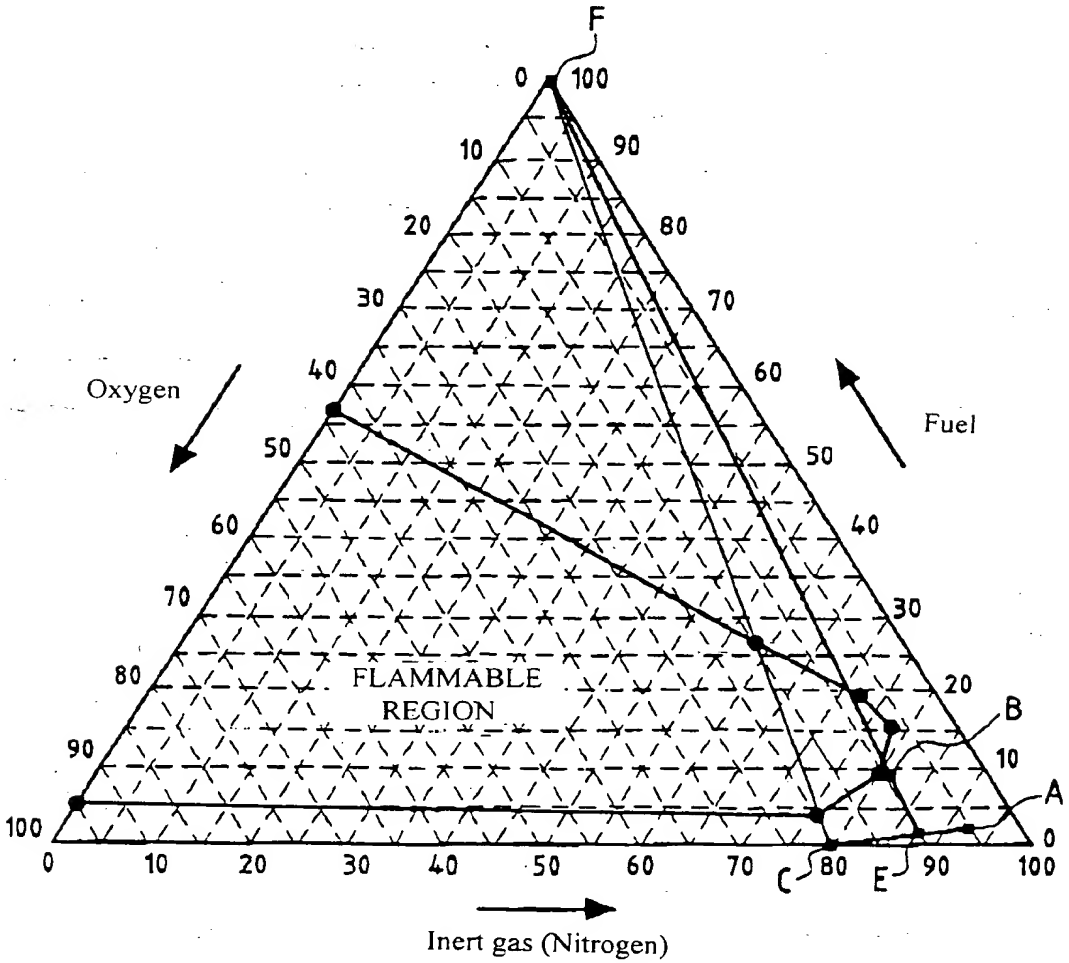

F
Oxygen
Fuel
FLAMMABLE
REGION
A
B
C
E
Inert gas (Nitrogen)

FIG.4B

FIG.5A

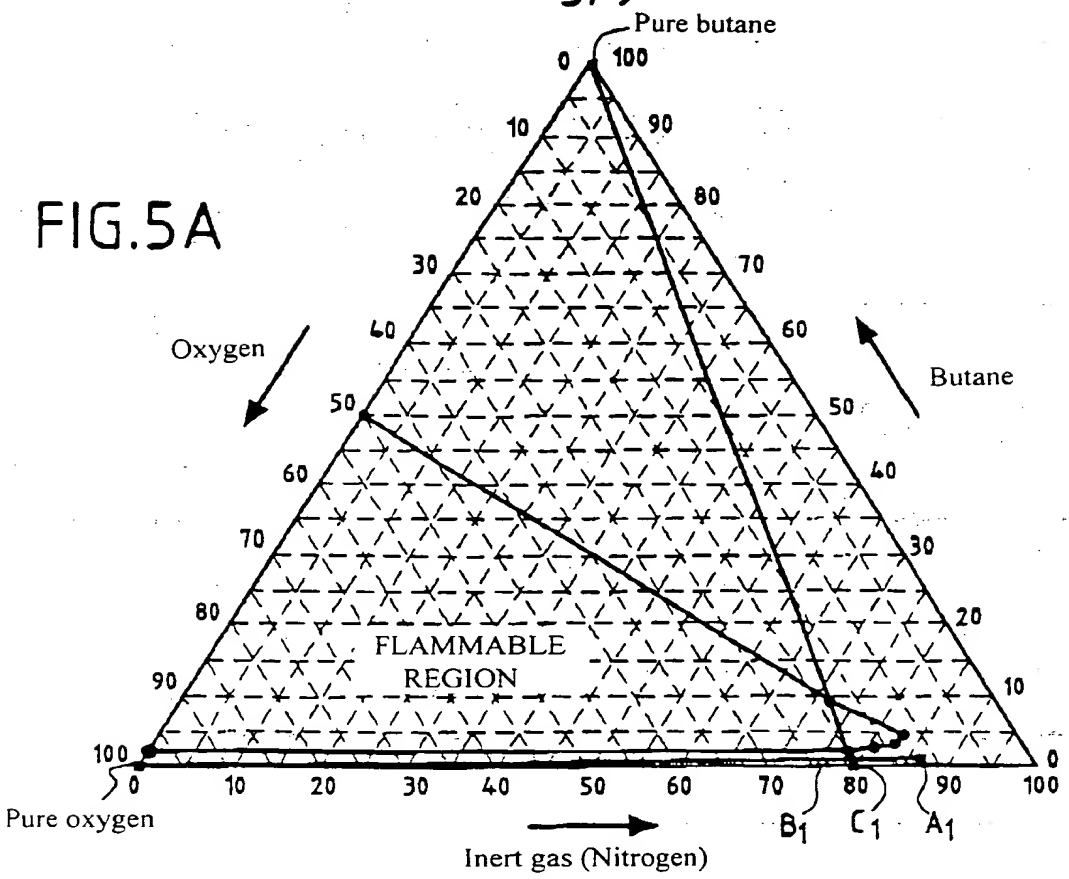

Pure butane
Oxygen
Butane
FLAMMABLE
REGION
Pure oxygen
Inert gas (Nitrogen)
B1
C1
A1

FIG.5B

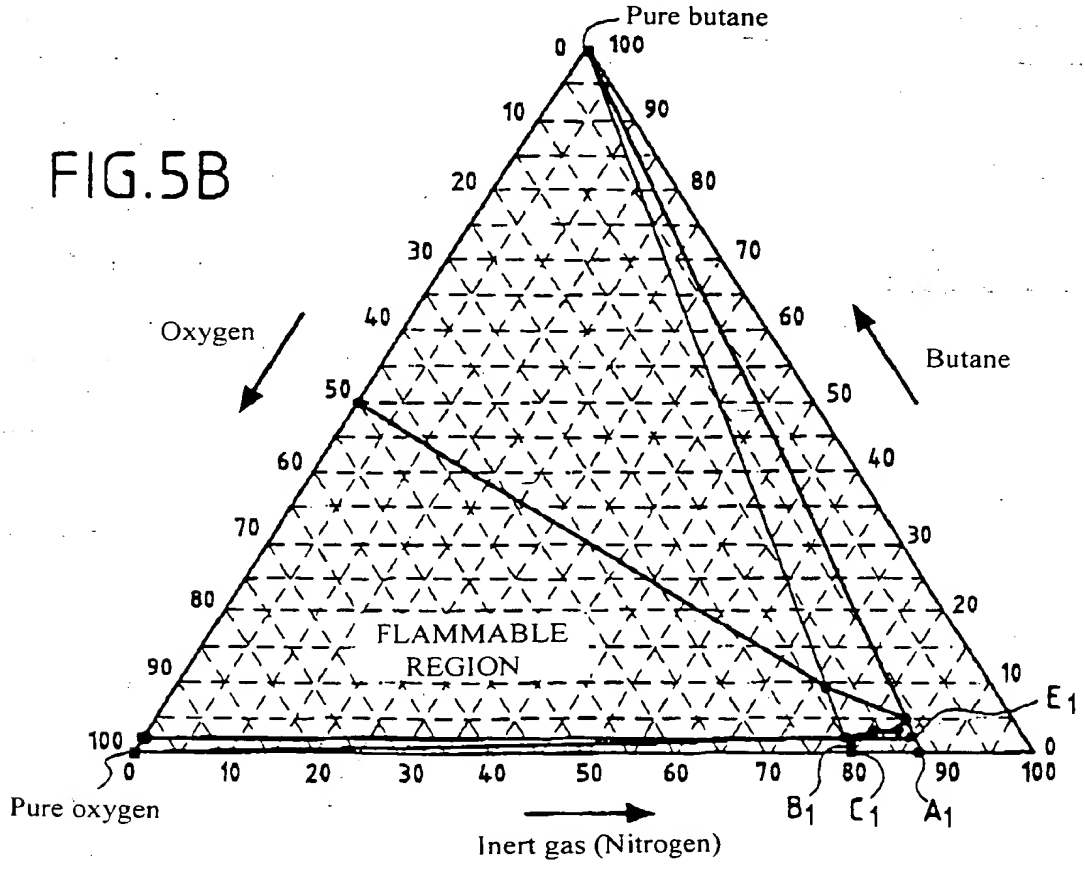

Pure butane
Oxygen
Butane
FLAMMABLE
REGION
E1
Pure oxygen
Inert gas (Nitrogen)
B1
C1
A1

FIG.6A

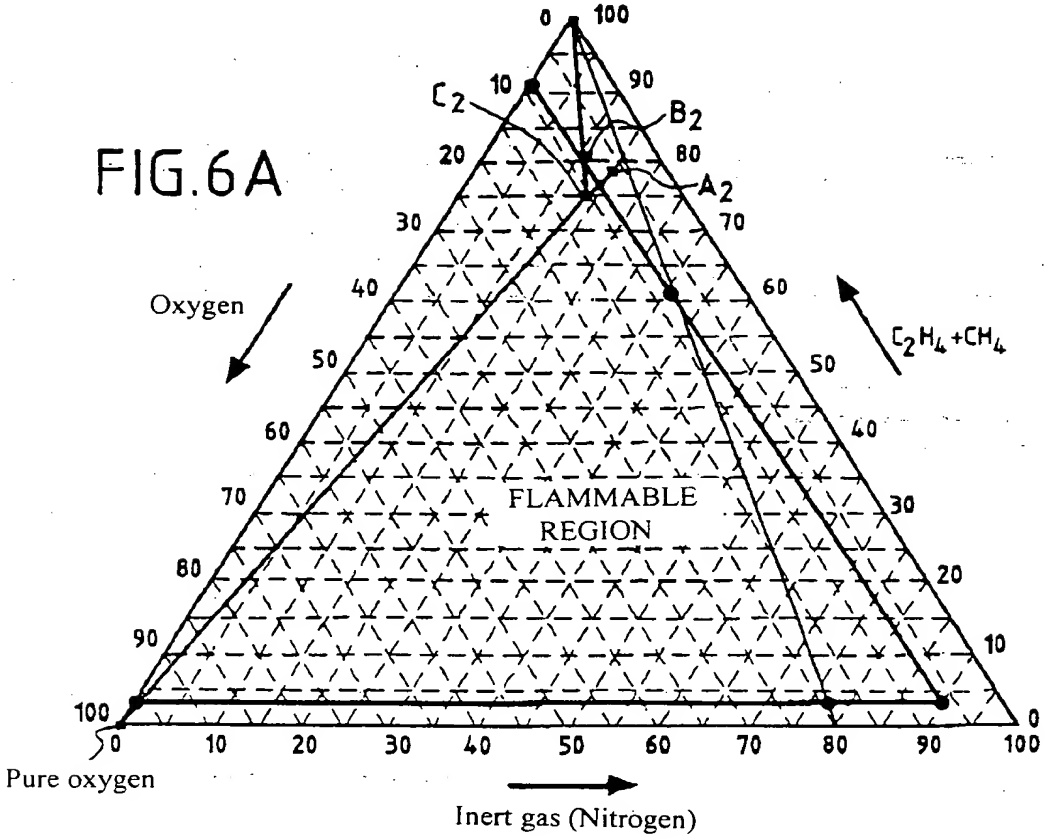

C2
B2
A2
Oxygen
C2H4+CH4
FLAMMABLE
REGION
Pure oxygen
Inert gas (Nitrogen)

FIG.6B

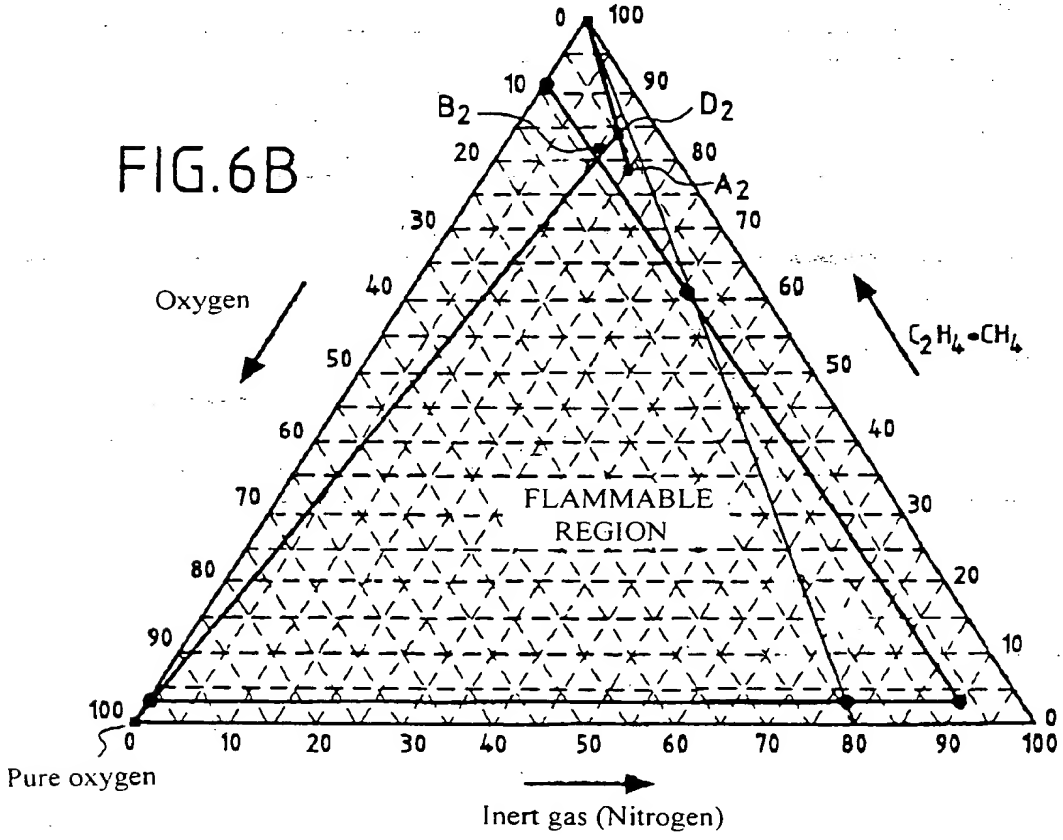

B2
D2
A2
Oxygen
C2H4+CH4
FLAMMABLE
REGION
Pure oxygen
Inert gas (Nitrogen)

FIG.7B

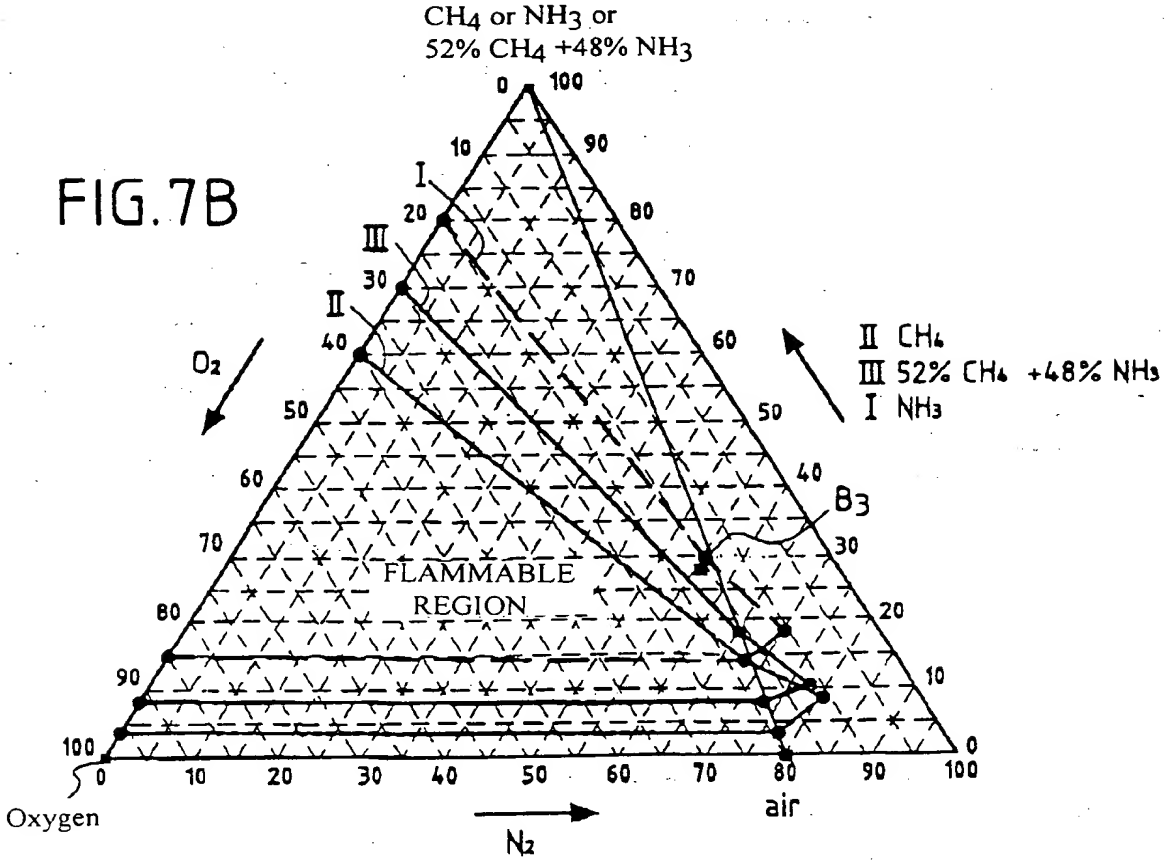
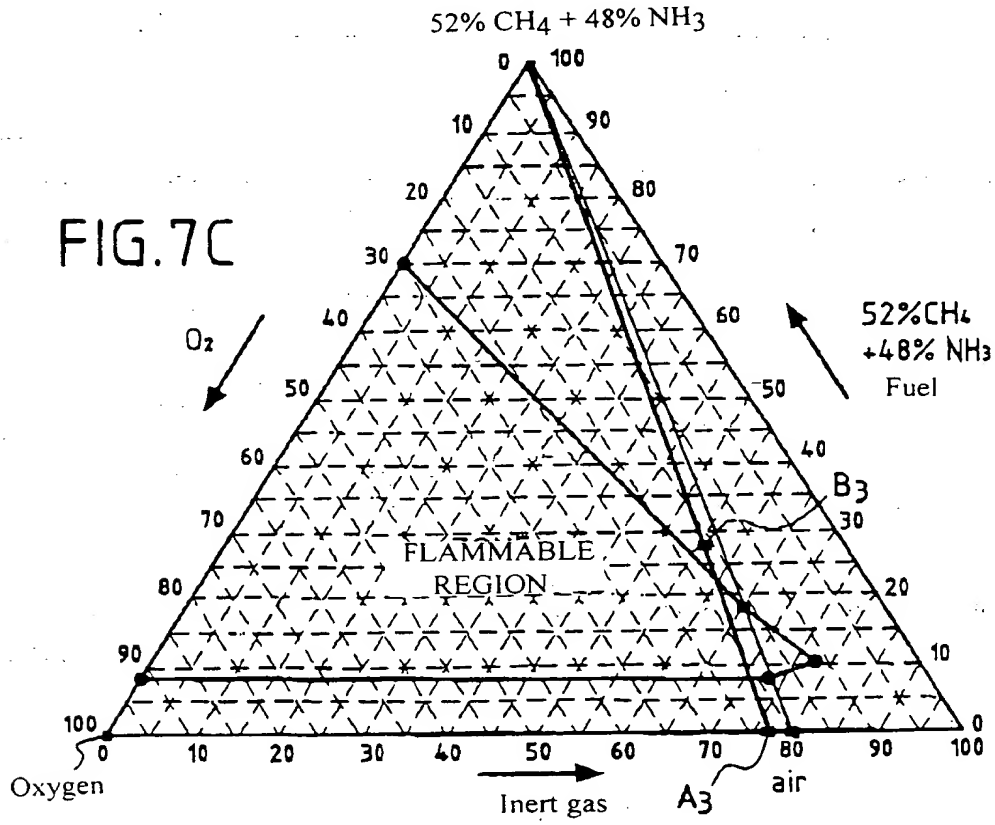

CH4 or NH3 or
52% CH4 +48% NH3
I
II
III
O2
II CH4
III 52% CH4 +48% NH3
I NH3
B3
FLAMMABLE
REGION
Oxygen
N2
air

FIG.7C


52% CH4 + 48% NH3
O2
52%CH4
+48% NH3
Fuel
B3
FLAMMABLE
REGION
Oxygen
Inert gas
A3
air

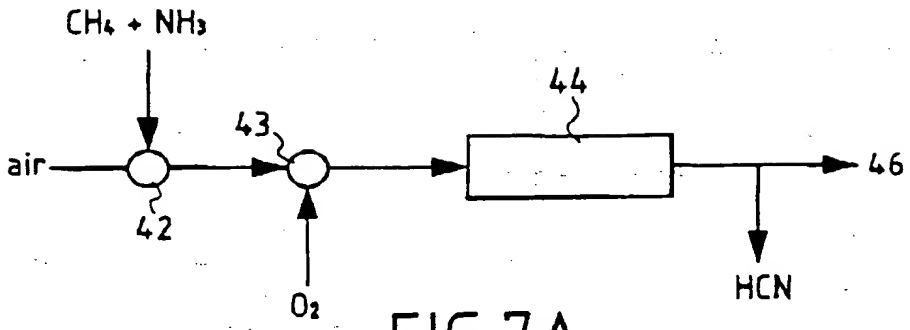


FIG.7A

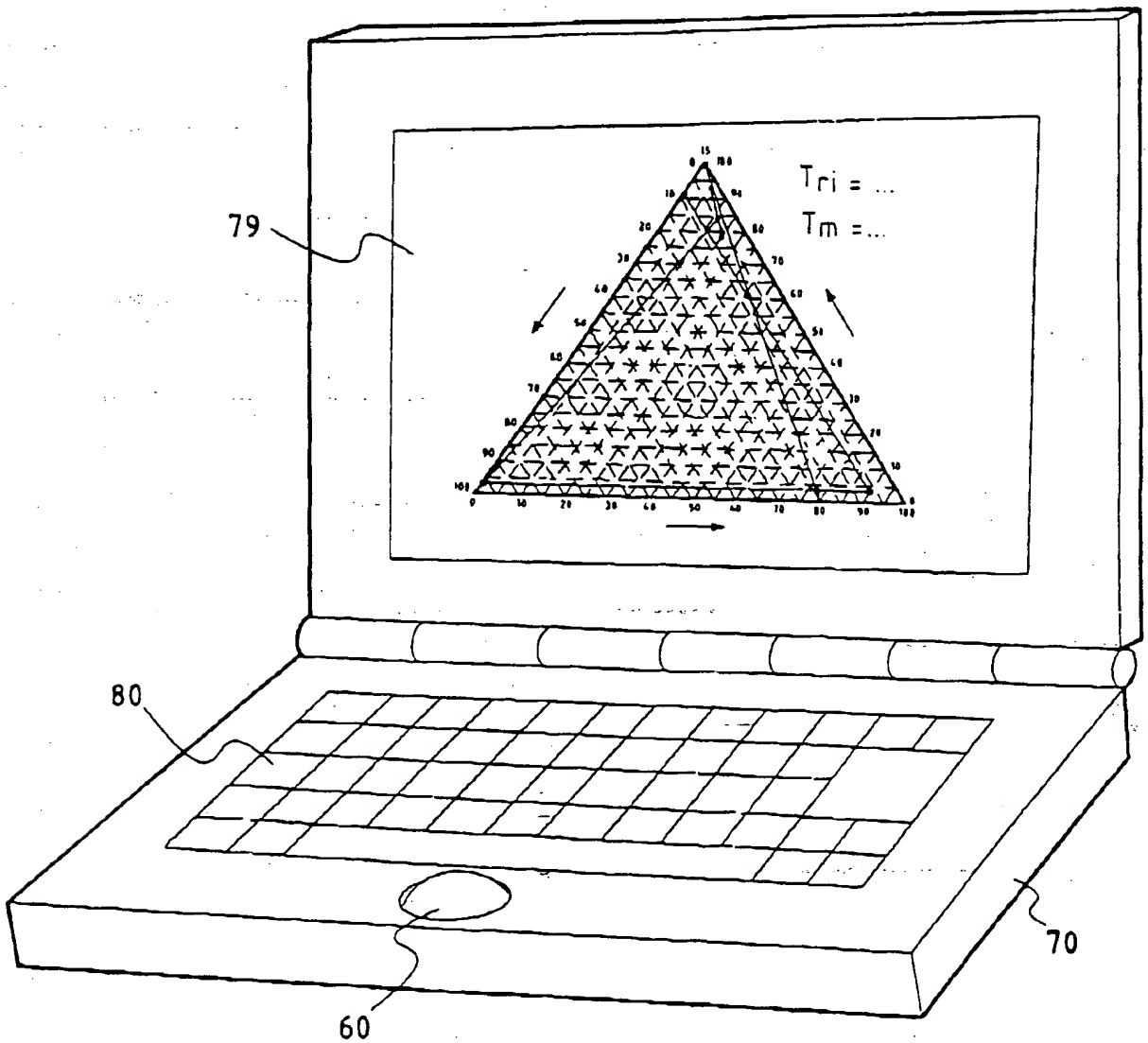


FIG.9A

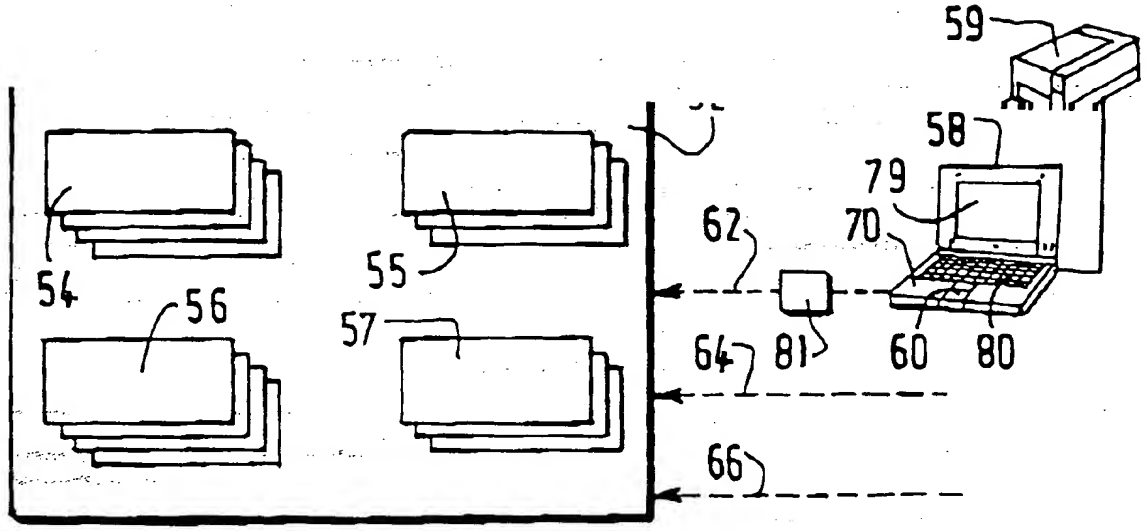


FIG.8

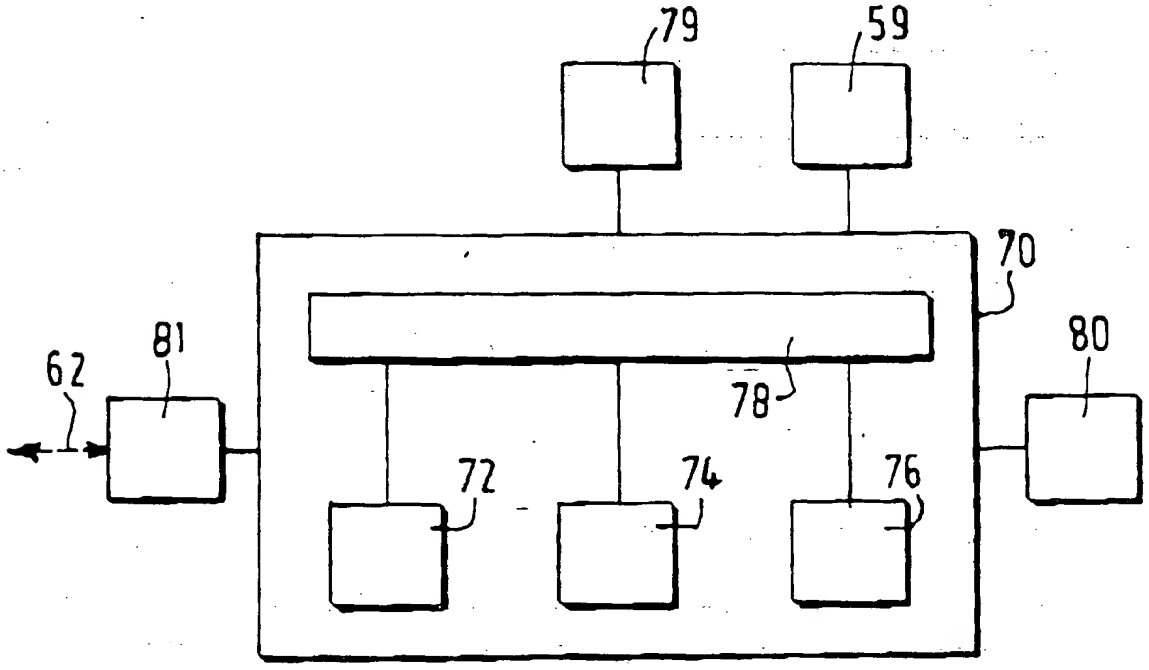


FIG.9B